In the claims:

1. A silica comprising:

(a) an aggregate of primary particles, said primary particles having an average diameter of at least seven (7) nanometers, wherein said aggregate has an aggregate size of less than one (1) micron; and

(b) a hydroxyl content of at least seven (7) hydroxyl groups per nanometer squared.

2. The silica of claim 1 wherein said average diameter of said primary particles is at least ten (10) nanometers.

3. The silica of claim 1 wherein said average diameter of said primary particles is at least fifteen (15) nanometers.

4. The silica of claim 1 wherein said hydroxyl content is at least ten (10) hydroxyl groups per nanometer squared.

5. The silica of claim 1 wherein said hydroxyl content is at least fifteen (15) hydroxyl groups per nanometer squared.

6. The silica of claim 1 wherein said aggregate size is less than 0.5 micron.

7. The silica of claim 1 wherein said silica is precipitated silica.

8. A slurry composition comprising:

(a) silica having an aggregate of primary particles, said primary particles having an average diameter of at least seven (7) nanometers, said aggregate having an aggregate size of less than one (1) micron, and said silica having a hydroxyl content of at least seven (7) hydroxyl groups per nanometer squared; and

(b) a liquid.

9. The slurry of claim 8 wherein said average diameter of said primary particles is at least ten (10) nanometers.

10. The slurry of claim 8 wherein said average diameter of said primary particles is at least fifteen (15) nanometers.

11. The slurry of claim 8 wherein said hydroxyl content is at least ten (10) hydroxyl groups per nanometer squared.

12. The slurry of claim 8 wherein said hydroxyl content is at least fifteen (15) hydroxyl groups per nanometer squared.

13. The slurry of claim 8 further comprising an oxidizing agent.

14. The slurry of claim 13 wherein said oxidizing agent is selected from inorganic and organic per-compounds, bromic acid, chloric acid, nitrates, sulfates, or mixtures thereof.

15. The slurry of claim 13 wherein said oxidizing agent is selected from urea-hydrogen peroxide, hydrogen peroxide, or a mixture thereof.

16. The slurry of claim 8 further comprising a polyvalent cation sequestrant, and a corrosion inhibitor.

17. The slurry of claim 16 wherein said polyvalent cation sequestrant is selected from carboxylic acids, polycarboxylic acids, amino acids, polyamino acids, dipeptides, polyimines, phosphoric acids, polyphosphoric acids, or mixtures thereof.

18. The slurry of claim 16 wherein said polyvalent cation sequestrant is selected from glycine, histidine, phytic acid, or mixtures thereof.

19. The slurry of claim 16 wherein said corrosion inhibitor is selected from polycarboxylic acids, polyamino acids, amino acids, imines, azoles, carboxylated azoles, mercaptans, or mixtures thereof.

20. The slurry of claim 16 wherein said corrosion inhibitor is selected from histidine, phytic acid or a mixture thereof.

21. The slurry of claim 16 further comprising a thickener.

22. The slurry of claim 8 further comprising phytic acid.

23. The slurry of claim 8 wherein said silica is precipitated silica.

24. The slurry of claim 8 wherein said liquid is water.

25. A method of preparing a slurry for chemical mechanical planarization comprising mixing a silica having an aggregate of primary particles, said primary particles having an average diameter of at least seven (7) nanometers, wherein said aggregate has an aggregate size of less than one (1) micron, and a hydroxyl content of at least seven (7) hydroxyl groups per nanometer squared, with a liquid.

26. The method of claim 25 wherein said liquid is water.

27. A method for removing at least one material selected from metals, metal oxides or polymer dielectrics from a substrate comprising:

(a) applying to said substrate a slurry which comprises silica having an aggregate of primary particles, said primary particles having an average diameter of at least seven (7) nanometers, wherein said aggregate has an aggregate size of less than one (1) micron, and a hydroxyl content of at least seven (7) hydroxyl groups per nanometer squared, and a liquid;

(b) placing a polishing pad at least partially in contact with said substrate; and

(c) rotating said polishing pad.

28. The method of claim 27 wherein said material is selected from copper, tantalum, tungsten and aluminum.

29. The method of claim 27 wherein said material is silicon dioxide.

30. The method of claim 28 wherein said material is copper and tantalum.

31. The method of claim 30 wherein removal of tantalum is at a rate equal to or greater than removal rate of copper.

32. A slurry for chemical mechanical planarization of a substrate comprising silica having an aggregate of primary particles and a BET/CTAB ratio of greater than 1.

33. The slurry of claim 32 wherein said aggregate of said silica has an aggregate size of less than one (1) micron.

34. The slurry composition of claim 32 wherein said primary particles of said silica have an average diameter of greater than seven (7) nanometers.

35. The slurry composition of claim 32 wherein said silica has a hydroxyl content of greater than seven (7) hydroxyl groups per nanometer squared.

36. A slurry for chemical mechanical planarization of a substrate comprising silica having an aggregate of primary particles, said aggregate having an aggregate size of less than one (1) micron, and said silica having an DHP oil absorption value of at least 150 milliliters per 100 grams of silica.

37. The slurry of claim 36 wherein said oil absorption is at least 220 milliliters per 100 grams of silica.

38. A precipitated silica comprising:

(a) an aggregate of primary particles, said primary particles having an average diameter of at least seven (7) nanometers, wherein said aggregate has an aggregate size of less than one (1) micron; and

(b) a hydroxyl content of at least seven (7) hydroxyl groups per nanometer squared.

39. A slurry for polishing a microelectronic substrate, said slurry comprising precipitated silica having an aggregate of primary particles, said primary particles having an average diameter of at least seven (7) nanometers, wherein said aggregate has an aggregate size

of less than one (1) micron, and a hydroxyl content of at least seven (7) hydroxyl groups per nanometer squared.

40. The slurry of claim 39 wherein said slurry provides a removal of at least one material selected from copper, tantalum and silicon dioxide from said microelectronic substrate.

41. The slurry of claim 40 wherein rate of removal of tantalum is equal to or greater than rate of removal of copper.

42. The slurry of Claim 39 wherein said silica has a BET to CTAB ratio of at least 1.2 or greater.

43. A slurry comprising silica wherein said silica comprises an aggregate, said aggregate can be reduced to an aggregate size of less than one (1) micron.

44. The slurry of claim 43 wherein said silica is precipitated silica.

45. The slurry of claim 43 wherein said aggregate is reduced by a double jet cell process.